

### REMARKS

In the Office Action, the Examiner has restricted the application to either claims 1-17 drawn to a method or claims 18-32 drawn to a system. On July 3, 2002, a provisional election was made to prosecute claims 1-17 and that election is hereby confirmed. Accordingly, claims 18-32 have been cancelled. Also in the Office Action, claims 1-17 have been rejected under 35 U.S.C. § 103(a) as being unpatentable in view of various references.

In response to the Office Action, independent claims 1 and 10 have been amended to now recite that the material be heated to a temperature between approximately 705°F and 1500°F to volatilize a portion of the material. Support for these amendments is found in the specification beginning on page 8 at line 19 and continuing to page 8 at line 24, and in the original claims.

Amendments to the claims have been presented herein to improve the readability of the claims and to point out the features which distinguish the present invention over the cited art. Also, these amendments have been made to more clearly define the structure and cooperation of structure for the present invention. Claims 1-17 remain pending.

Rejections under 35 U.S.C. § 103(a)

In the Office Action, claims 1, 3, 8, 10-14, 16 and 17 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Barton et al. Further, claims 2 and 4 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Barton et al. as above, and further in view of Bremer et al. 5,562,834. Also, claims 5 and 6 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Barton et al. as above, and further in view of Modell et al. 5,252,224. Finally, claims 7, 9 and 15 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Barton et al. as above, and further in view of Hazlebeck et al. 6,054,057.

In response to the Office Action, independent claims 1 and 10 have been amended and now recite methods for treating a material wherein the material is heated to a temperature between approximately 705°F and 1500°F to volatilize a portion of the material. The volatilized portion is then oxidized in a second chamber (claim 1) or hydrothermally treated (claim 10). No such steps or sequence of steps is disclosed by Barton et al. Instead, Barton et al. disclose an aqueous phase reaction zone controlled to cause the exiting vapor to be in a substantially saturated state (see Barton et al., col. 5, Ins. 5-7). It follows that the temperature within the aqueous phase reaction zone must be below the critical point of water (i.e. 705°F). Accordingly, Barton et al. fail to teach or suggest a method as claimed in amended claims 1 and 10 for the present invention.

Nor would it be obvious to modify Barton et al. to arrive at the present invention. More specifically, unlike the present invention, Barton et al. is directed toward recovering power from the overhead stream of a conventional wet oxidation process. The present invention on the other hand is directed toward decontamination of solids, liquids and solid liquid mixtures (see specification at pg. 5, lines 6-17).

Nor is the teaching that is lacking in Barton et al. provided in any of the other cited references. Specifically, none of the other references (i.e. Bremer et al., Modell et al. or Hazlebeck et al.) teach or suggest the steps of heating a material to a temperature between approximately 705°F and 1500°F to volatilize a portion of the material followed by oxidizing the volatilized portion in a second chamber (claim 1) or hydrothermally treating the volatilized portion (claim 10).

In view of the arguments presented above for distinguishing independent claims 1 and 10 of the present invention from the cited references, Attorney for Applicant respectfully contends that independent claims 1 and 10 are now allowable. Accordingly, since rejected claims 2-9 and 11-17 respectively depend either directly or indirectly from independent claim 1 or independent claim 10, Attorney for Applicant respectfully contends that these claims are also allowable. For the reasons set forth above, Attorney for Applicant believes the basis for rejecting claims 1-17 under 35 U.S.C. § 103(a) has been overcome and the rejections should be withdrawn.

The references cited by the Examiner, but not relied on for the rejection of claims, have been noted.

In conclusion, Attorney for Applicant respectfully asserts that claims 1-17 are patentable for the reasons set forth above, and that the application is now in a condition for allowance. Accordingly, an early notice of allowance is respectfully requested. The Examiner is requested to call the undersigned at 619-688-1300 for any reason that would advance the instant application to issue.

Dated this 18<sup>th</sup> day of November, 2002.

Respectfully submitted,

A handwritten signature in dark ink, appearing to read 'MATTHEW K. HILLMAN', with a large, sweeping horizontal stroke above the name.

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**ATTACHMENT:**

**VERSION WITH MARKINGS TO SHOW CHANGES MADE TO THE CLAIMS**

In the Claims:

Please amend claims 1 and 10 as follows:

1. (Amended) A method for treating material, said method comprising the steps of:

heating and pressurizing the material to a temperature between approximately [300°F] 705°F and approximately 1500°F and a pressure of between approximately 20 atmospheres and approximately 200 atmospheres in a first chamber;

retaining said material in said first chamber at said temperature and said pressure to volatilize a portion of said material;

transferring said volatilized portion to a second chamber;

adding oxidant to said second chamber; and

oxidizing said volatilized portion in said second chamber at a temperature between approximately 1000°F and approximately 1800°F and a pressure of between approximately 20 atmospheres and approximately 200 atmospheres.

10. (Amended) A method for treating a material, said process comprising the steps of:

heating said material to a [first] temperature between approximately 705°F and 1500°F[, said first temperature being sufficient] to volatilize at least a portion of the material to separate the material into a volatile portion and a residue portion;

disposing said volatile portion in a chamber; and

hydrothermally treating said volatile portion to chemically convert at least a fraction of said volatile portion.

Please cancel claims 18-32 without prejudice.



PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Michael H. Spritzer, et al. )  
Serial No: 09/841,058 ) Art Unit  
Filed: April 23, 2001 ) 1724  
For: PROCESS FOR HYDROTHERMAL )  
TREATMENT OF MATERIALS )  
Examiner: Peter A. Hruskoci )  
Attorney Docket: 11156.81 )

CERTIFICATE OF MAILING UNDER 37 CFR § 1.8

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail, postage prepaid, in an envelope addressed to: Box Non-Fee Amendments (Pats), Hon. Commissioner for Patents, Washington, D.C. 20231, on this 18th day of November, 2002.

*Debra D Burns*

DEBRA D. BURNS  
Legal Documents Assistant

Transmitted: Transmittal of Amendment (with Attachment) in Response to the Office Action dated July 18, 2002; Petition for Extension of Time; and Check for Petition for Extension of Time.

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